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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,446	04/25/2005	Bjorn Grassl	GIAS-005	4897
32628 7590 06/25/2009 KANESAKA BERNER AND PARTNERS LLP 1700 DIAGONAL RD SUITE 310 ALEXANDRIA, VA 22314-2848				
EXAMINER				
PUNNOOSE, ROY M				
ART UNIT		PAPER NUMBER		
2886				
MAIL DATE		DELIVERY MODE		
06/25/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/528,446

**Applicant(s)**

GRASSL ET AL.

**Examiner**

ROY PUNNOOSE

**Art Unit**

2886

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 April 2009.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 35-93 is/are pending in the application.  
4a) Of the above claim(s) 52-58 and 87-93 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 35-69 and 80-86 is/are rejected.  
7) ☒ Claim(s) 70-79 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 18 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 03/18/2005  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Pre-Amendment*

1. With the pre-amendment filed on 09/16/2005, the applicant has cancelled claims 1-34 and introduced new claims **35-69 and 80-93**.

### *Election/Restriction*

2. Applicant's election without traverse of claims 35-51 and 59-86 in the reply filed on 04/07/2009 is acknowledged. However, claims 70-79 are missing in the application. Claims 35-69 and 80-86 are pending in the application and have been examined.

### *Claim Objections*

3. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). **Claims 70-79 are objected to because they are missing or have been misnumbered.** Appropriate correction is required.
4. Claim 37 is objected to for the following reason: Every dependent claim, in a true sense, is an independent claim, only that all the limitations of its parent claim are not repeated for the sake of convenience and efficiency. With that said, in claim 37 (claim 37 truly being a combination of claims 35 and 37), with the recitation of "a fourth angle" question arises as to whatever happened to the "third angle". This ambiguity has made the claim vague and indefinite. Appropriate correction is required. The applicant is requested to check for this type of deficiency in other claims.

5. Claim 86 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 86 depends on claim 54, which is a non-elected claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 35 is rejected because it recites the limitation “the surface” in line 9. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of a surface in claim 35.

8. Claim 42 is rejected because it recites the limitation “the third angle” in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of a third angle in any of its parent claim(s).

9. Claim 43 is rejected because it recites the limitation “the third angle” in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of a third angle in its parent claim, claim 35.

10. Claims 43 and 68 are rejected because a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. &

Inter. 1989), as to where broad language is followed by "such as" and then narrow language.

The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 43 and 68 recite the broad recitation 5° to 60°, and the claim also recites 15° to 45° which is the narrower statement of the range/limitation. Appropriate correction is required.

11. Claims 47 and 82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 47 and 82 are rejected because it is not clear what "mechanical software" or "electronic software" or "technical software" means.

12. Claim 48 is rejected because it recites the limitation "the interference signals" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of interference signals in its parent claim, claim 35.

13. Claim 48 is rejected because it recites the limitation "the measuring signals" in line 3. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of measuring signals in its parent claim, claim 35.

14. Claim 49 is rejected because it recites the limitation "second light sources" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of second light sources in its parent claim, claim 35.

15. Claim 50 is rejected because it recites the limitation “calculating the coordinates” in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of calculating the coordinates in its parent claim, claim 35.

16. Claim 51 is rejected because it recites the limitation “the results” in line 3. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of any results in its parent claim, claim 35.

17. Claim 59 is rejected because it recites limitations “the surface” in line 5 and “the intensities” in line 10. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of a surface or intensities in the claim.

18. Claim 63 is rejected because it recites the limitation “the illumination and measuring angle” in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of said illumination and measuring angles in claim 63 or its parent claim, claim 59.

19. Claim 64 is rejected because it recites the limitation “the free ends” in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of said free ends in claim 64 or its parent claim, claim 59.

20. Claim 67 is rejected because it recites the limitation “the third angle” in line 2 and “the fourth angle” in line 3. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of a third angle or a fourth angle in claim 67 or its parent claim, claim 59.

21. Claim 68 is rejected because it recites the limitation “the third angle” in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of a third angle in claim 68 or its parent claim, claim 59.

22. Claim 83 is rejected because it recites the limitation “the interference signals” in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of interference signals in claim 83 or its parent claim, claim 59.

23. Claim 84 is rejected because it recites the limitation “second light sources” in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of second light sources in claim 84 or its parent claim, claim 59.

24. Claim 85 is rejected because it recites the limitations “automatic comparison and “calculating the coordinates” in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference or disclosure of automatic comparison or calculating the coordinates in claim 85 or its parent claim, claim 59.

***Claim Rejections - 35 USC § 102***

25. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

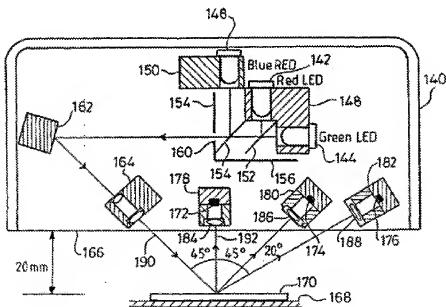
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

26. Claims 35 and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Alcock et al (US 2004/0051862 A1).

27. Claims 35 and 59 are rejected because Alcock et al (Alcock hereinafter) teaches of a device for checking the authenticity of a forgery-proof marking (on a substrate 170) with colors

which change depending on the angle of observation (Optically Variable Material), with a) several first light sources 142, 144, 146 (Red, Green and Blue LEDs) which are emitting light in a specified spectral range, wherein the first light sources differ from one another in the wavelength of their emission maximum, and wherein the first light sources are installed in a housing 140 so that they irradiate the surface under a specified first angle when the housing is placed on this surface, b) a first means 180 located at a second angle for the measurement of the intensities of the light reflected by the surface 170, and c) a means of automatic comparison of the measured intensities with the stored reference intensities for the respective light sources for at least one specified color (see abstract; Figure 15).



### *Claim Rejections - 35 USC § 103*

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

29. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(e) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

30. Claims 36-51, 59-69 and 80-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcock et al (US 2004/0051862 A1) in view of what is well-known in the art.

31. Claims 36-51, 59-69 and 80-86 are rejected because the limitations claimed in claims 36-51, 59-69 and 80-86 are well-known in the art and therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate such limitations into Alcock's apparatus and method to add more features to the apparatus or make the apparatus more efficient in detecting a forged document.

32. The prior art cited in the accompanying PTO-892 is made of record and not relied upon, is considered pertinent to applicant's disclosure.

33. Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice in this office action. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well-known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the next reply after the Office action in which the well known statement was made.

#### ***Contact/Status Information***

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Roy M. Punnoose** whose telephone number is **(571)272-2427**. The examiner can normally be reached on 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Tarifur R. Chowdhury** can be reached on **571-272-2287**. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Roy M. Punnoose/**  
Primary Examiner  
Art Unit 2886